

**NATURAL RESOURCES CONSERVATION SERVICE  
CONSERVATION PRACTICE STANDARD AND SPECIFICATIONS**

**UPLAND WILDLIFE HABITAT MANAGEMENT**

(acre)

**Code 645**

**DEFINITION**

Creating, restoring, maintaining or enhancing areas for food, cover, and water for upland wildlife and species which use upland habitat for a portion of their life cycle.

**PURPOSE**

- Provide a variety of foods for the desired wildlife species through the management of the biophysical community.
- Provide a variety of cover types for the desired wildlife species; examples include nesting, fawning, loafing, resting, escape, travel lanes, and thermal through the management of the biophysical community.
- Provide water requirements for the desired kinds of wildlife species.
- Manage habitat elements in proper amounts and locations to insure a viable wildlife population within the species home range.

**CONDITIONS WHERE PRACTICE APPLIES**

On all landscapes suitable for the development/management of the biophysical communities needed within the range of the desired species.

**CRITERIA**

**General Criteria Applicable to all Purposes**

Habitat development and management, necessary to achieve the purpose(s), shall be based on use of the Wildlife Habitat Appraisal Guides (WHAG) – Community Models or the individual species guidesheets depending upon the needs and objectives of the landowner. The appraisal is used to determine a habitat suitability index (HSI) for individual fields, the biophysical community, or an evaluation for the entire property or operating unit (farm).

WHAG evaluations must result in a HSI of at least 0.5 for the field, community, or farm. Recommendations selected by the producer for development and management should achieve this minimum level of scoring on the community or species model. If limiting factor Bobwhite Quail (BWQ) model is used no limiting factor rating score will be less than 60% of the optimum.

Habitat Elements

The following elements will be considered when assessing wildlife habitat. Not all may apply to every habitat type.

1. Food
  - a. Type
  - b. Amount

## 2. Cover

- a. Type - nesting, brood rearing, resting/roosting, protection/escape, and winter.
- b. Amount
- c. Quality

## 3. Water

- a. quality
- b. quantity
- c. accessibility
- d. seasonal availability

## 4. Interspersion and Distance to

- a. crops
- b. grasses and or legumes
- c. shrubs
- d. trees
- e. water
- f. openings

## 5. Migration

- a. routes
- b. season of use
- c. corridors

As indicated by the wildlife habitat evaluation, certain habitat elements may be weak or missing. For the desired natural community or selected wildlife species, identify the types, amount, and distribution of habitat elements and management actions necessary to achieve the management objectives.

The amount and kinds of habitat elements planned, their location, and management shall be identified in a management plan.

Native plant materials will be used whenever possible.

Vegetative manipulations to restore plant diversity and provide for wildlife population stability shall be accomplished by prescribed burning or mechanical, biological or chemical methods, or a combination of the four.

Biological control of undesirable plant species and pests (e.g., using predator or parasitic species) shall be implemented where available and feasible.

Any habitat management technique will ensure that the soil loss is within tolerable limit (T).

Where feasible and desired by the producer, PRESCRIBED BURNING (338) or light disking (see EARLY SUCCESSIONAL VEGETATION – 647) will be utilized instead of mowing. Chemical suppression of dominant grasses can also be accomplished by using approved chemicals.

Livestock grazing or haying can be conducted to maintain or improve vegetation structure and composition so as to improve the desired wildlife habitat.

Management measures shall be provided to control invasive species and noxious weeds on a “spot” basis. To protect forbs and legumes that benefit native pollinators and other wildlife and provide insect food sources for grassland nesting birds, spraying or other control of noxious weeds shall be done on a “spot” basis.

### **Permanent Vegetative Cover (Grasses, Legumes, Forbs) –**

#### **Development**

Native plants and communities are encouraged since they are well-adapted to sites, less invasive, and likely to provide quality habitat without long term maintenance. However, due to cost, availability, and landscape position, native plants may not be feasible in all situations.

CONSERVATION COVER (327) or RESTORATION of DECLINING HABITATS (643) will be used to develop cover for wildlife. Planting rates and mixes will be based on the landowners desired vegetation composition after establishment. Planting mixes under (327) for wildlife will contain multiple species (at least 3) with 60 percent or more of species having a good or excellent wildlife rating to achieve specific results. Seed mixtures will not contain species with a poor wildlife rating in Table 2 of (327).

Where wildlife habitat development is the producer's primary objective and will occur only on NHEL soil mapping units, CONSERVATION COVER (327)-seeding rates may be multiplied by a factor of 0.75. This reduced rate will provide for a more "open" stand and allow for other annual plant growth. Erosion rates must remain within tolerable limit (T) after treatment. Gully erosion must also be controlled by proper treatment.

It is recommended to consider the eradication of undesirable plant species. This eradication is often necessary to provide suitable conditions for grassland development. Recommendations are found in CONSERVATION COVER (327), PASTURE and HAY PLANTING (512), and PEST MANAGEMENT (595).

Interseeding of legumes and forbs into existing grass stands can provide a needed food source and add plant diversity to attract beneficial insect populations. CONSERVATION COVER (327) or RESTORATION of DECLINING HABITATS (643) will be used for appropriate seeding mixtures/techniques.

### Management

Used alone or in combination with other techniques, mechanical methods can successfully manipulate successional stages of habitat. See EARLY SUCCESSIONAL HABITAT DEVELOPMENT/MANAGEMENT (647) and RESTORATION and MANAGEMENT of DECLINING HABITATS (643) for additional information.

Light disking (2-4" deep) of existing stands (greater than 4 years old) may be necessary to increase the amount of open ground and encourage a diverse plant community of annual and perennial plants. Disk between October 1 and December 31. Alternate disked strips (less than or equal to 75' wide) with buffer strips (2 times the disked width) across the field on contour/cross-slope. Rotate the disked strips across the field.

Annual mowing or mowing of entire stands is discouraged since it greatly decreases plant diversity, and reduces residual cover available

for the following nesting season. If mowing is necessary, two options are available. Mow July 15 – August 15 to protect ground nesting wildlife and allow residual growth. Mow no more than one-half of the field every year. Rotate mowed strips across the field every year. Mow cool season grasses no shorter than 6 inches. Native warm season grasses should be mowed no shorter than 10 inches.

A second option for mowing would be strip mowing in the spring. Mowing can be done March 15 to May 1 to encourage vegetative diversity. If mowing after mid-April, one must weigh the benefits of vegetative diversity gains versus impacts on ground nesting wildlife. Mow no more than one-half of the field every year. Rotate mowed strips across the field every year.

If mowing is used as a habitat management practice, residues will be thoroughly shredded to prevent excess litter accumulation.

Use PRESCRIBED GRAZING (528A) to manipulate plant succession, reduce ground litter, and provide dusting areas. Livestock can be beneficial to maintaining the quality of herbaceous cover and controlling undesirable plants when managed in accordance with a grazing plan with wildlife habitat management as the primary objective. This technique requires close management supervision to assure the site is not over-grazed.

Use PRESCRIBED BURNING (338) to remove excess litter, which can reduce the quality of wildlife habitat. Controlled fire can allow germination of seed bearing annuals, increase plant species diversity, control unwanted woody cover, and open up the stand for movement of small animals and birds. See Wildlife – Prescribed Burning for Wildlife Job Sheet (MO - eFOTG – Section IV C.)

For greatest wildlife benefit native warm season grasses should only be burned between August 15 and March 15. Prescribed burning beyond March 15 for wildlife management purposes will be based on recommendation of NRCS or MDC wildlife planner.

Cool season grasses may be burned only between March 15 and May 1. Prescribed burning beyond May 1 for wildlife management purposes will be based on recommendation of NRCS or MDC wildlife planner.

Use selected herbicides to manipulate plant succession and improve habitat diversity. Careful planning and care in application are required in the use of chemicals to improve existing habitat. Native warm season grasses may be sprayed in May and June. Cool-season grasses may be sprayed March 15 – May 15 or October 1 – December 1. Apply in strips totaling no more than one third of the field in any one year. Selection of a product should be based on several factors including product effectiveness, non-target species impacts, toxicological risks, and off-site movement of chemicals. See PEST MANAGEMENT (595) for recommendations and precautions.

### **Permanent Vegetative Cover (Trees and Shrubs) –**

#### **Development**

Species recommendations will be based on landowner objectives and site potential. Planting trees and shrubs has the potential of adversely affecting non-target species. Careful consideration is to be given when planting trees and taller shrubs in the historic prairie region of the state. Soils and site potential should guide the plant species selected. Refer to eFOTG - Section II G.1.

Woody plantings will follow the criteria and guidelines in HEDGEROW PLANTING (422), TREE/SHRUB ESTABLISHMENT (612), or WINDBREAL/SHELTERBELT ESTABLISHMENT (380). These standards provide guidelines for clump and block plantings and reinforcement of existing woody cover.

Where dense woody cover is lacking, but necessary to meet species objectives, area(s) comprising 0.1-0.25 acre native shrub planting should be planted in each 5-40 acres of habitat that lacks woody cover. Plant these areas at 5X5' spacing for greatest wildlife benefit. An

increased number of shrub plantings may be needed based on specific wildlife objectives. Consult with NRCS or MDC wildlife planner for specific recommendations. See Wildlife – Quail Covey Headquarters Wildlife Job sheet (MO - eFOTG – Section IV C.)

#### Bobwhite Quail Covey Headquarters

- Quail covey headquarters are small tree/shrub seedlings planted in a clump planting at least 30 X 50 ft. at a 5 X 5 ft. spacing within the clump planting. Use no weed mat (spreading of shrubs is desired). Perennial herbaceous vegetation control is required. See 612 – Tree and Shrub Establishment for planting methods, etc...The number and location of covey headquarters will be based on landowner's objectives and use of the BWQ limiting factor model. Headquarters areas provide optimum benefits when planted next to bare ground and diverse herbaceous cover.
- Container grown shrubs – plant shrubs on a 7 X 7 spacing in a 30 X 50 ft. area. Use no weed mat (spreading of shrubs is desired) and provide starter fertilizer. Herbaceous vegetation control is required. See 612 – Tree/Shrub Establishment for planting methods, etc...

A companion component to reinforce the covey headquarters is the - Downed tree structure - place downed trees (minimum 20' height and well branched) in and around shrub plantings or food plots. At least 3 down trees per structure are required. Recommend oak, hickory, Osage orange, or cedar.

Downed tree structures need to be placed on bare ground or on areas where perennial herbaceous vegetation is controlled. The number and location of downed tree structures will be based on landowner's objectives and use of the BWQ limiting factor model

Species to plant – gray dogwood, roughleaf dogwood, blackberry, fragrant sumac,

American plum, Chickasaw plum, hazelnut, false indigo bush, elderberry, chokecherry, nannyberry, and shrub lespedeza (see Biology Tech Note No. 16 for seeding and management recommendations for shrub lespedeza). Native plant materials should always be considered for use first where high quality natural communities exist. Other species can be approved for use by NRCS or MDC wildlife planner.

### **Management**

Manipulation of woody tree and shrub stands to achieve early successional plant composition encourages re-growth and regeneration (suckering) of palatable and nutritious vegetation beneficial to large mammals. Browse management also increases plant diversity, which supports a variety of other species. Browse management can be accomplished by mechanical (shearing, hand-cutting, mowing, etc), or prescribed burning.

Encourage old growth trees (greater than 80 years or 16 inches diameter breast height (dbh)) or deferring timber activities to maximize wildlife values on at least 10 percent of the forested area.

Removal of competition will provide sunlight and growing space necessary for full crown development by the target species. FOREST STAND IMPROVEMENT (666) will be used for recommendations on thinning extent and techniques. See Wildlife – Forest Stand Improvement for Wildlife Job Sheet (MO - eFOTG – Section IV C.)

Preservation of wildlife trees (den trees and snags) serves many purposes for forest wildlife species. The goal is to leave or establish 7 snag and 7 den trees greater than 6 inches dbh/acre. Ideally, leaving 1 snag tree greater than 20 inches dbh, 4 snag trees 10 to 20 inches dbh, and 4 snag trees 6 to 10 inches dbh per acre provide an optimal mix. Preservation of one den tree greater than 20 inches dbh/acre is recommended.

Artificial nest structures can provide nesting opportunities for cavity or roost nesting birds. Design, specifications, and construction shall be consistent with plans included in the Missouri Department of Conservation

publication “Woodworking for Wildlife”, or other designs specified by a technical wildlife agency.

Forest openings provide open space necessary for young birds to sun themselves, provide singing grounds, and a steady food supply. Openings of 1 to 3 acres are typically desirable. Woodland sites less than 40 acres in size will not benefit from openings. Adding forest openings to blocks of forest less than 40 acres in size is not appropriate. Likewise, caution should be exercised when proposing openings in woodland sites larger than 250 contiguous acres. Openings in this situation may lead to habitat fragmentation for non-target interior nesting species and increased predation. Consult with NRCS Biologist/Wildlife Conservationist or MDC Biologist for specific recommendations. See Wildlife – Permanent Forest Openings for Wildlife Job Sheet (MO - eFOTG – Section IV C.)

A number of well-scattered openings are more beneficial than a single large opening of comparable size. South facing slopes are preferred since these areas tend to remain free of snow for a longer time in the spring and fall. If woody vegetation encroachment comprises more than 10 percent of existing openings, woody vegetation will be controlled to help maintain desired vegetative components. Methods typically include a combination of mechanical, chemical, or prescribed burning practices.

USE EXCLUSION (472) and FENCING (382) can be used to prevent improper use of wooded areas by livestock.

Brushpiles can be developed with the material left from forest stand improvement or opening development. The number and location will be dictated by the objectives of the land user and recommendations based on WHAG model guidesheets.

### **Grassland/Brushland Development and Management**

Apply this component to develop and maintain brushland/grassland habitats in prairie, transition (savanna), and forest areas. Glade and Savanna communities are included within this component. See EARLY

SUCCESSIONAL HABITAT DEVELOPMENT/MANAGEMENT (647) and RESTORATION and MANAGEMENT of DECLINING HABITATS (643) or the Savanna Information Worksheet (IS-MO643) (MO – eFOTG Section IV D.) for additional information.

Mechanical methods (burn, mow, disk, shear, or use of dozer) used alone or in combination with other techniques can successfully manipulate successional stages of habitat. Woody cover control becomes critical in planning areas to revert to prairie/savanna. Cut stumps should be treated to prevent sprouting. Amount of woody cover removal will be based on soil and site conditions.

Other management recommendations will be found under the preceding Management section under Permanent Vegetative Cover (Grasses, Legumes, and Forbs).

### Edge Habitat -

#### Development/Management

Woody root pruning can be used to prevent encroachment of woody material into cropland edges. Root pruning is used to maintain crop yields adjacent to woody fencerows or wooded fields. Root pruning on a 3 to 5 year interval prevents crop yield reduction. See WOODY ROOT PRUNING (747 – Interim) for further guidelines.

High-quality edge is a wide band of plants that gradually change from one cover type to another. See FIELD BORDER (386) for information. A minimum of 30 feet of edge is required to prevent excessive predation on wildlife using these transitional areas.

When edges are created in an area that is grazed, the edge will be fenced to exclude livestock.

Planting shrubs/small trees at the edge of the field can create Woodland Edge. HEDGEROW PLANTING (422), TREE/SHRUB ESTABLISHMENT (612), or WINDBREAK/SHELTERBELT ESTABLISHMENT (380) provide species and planting guidelines. A minimum of two rows will be planted.

A cutback border (minimum of 30 feet wide) can also be created along a woodland edge. Overstory trees are removed to favor shrubs, vines and herbaceous vegetation. The regrowth and sprouting that result will provide benefits for 5 to 10 years. Cut stumps may be allowed to sprout or stump treated depending on woody species selection objectives. Ideally, cut trees will be left where they fall, or piled loosely. The extent and number of cutback borders will depend on landowner's management objectives. See Wildlife – Edge Feathering Job Sheet (MO - eFOTG – Section IV C.)

To maintain maximum values in the cutback border, the area should be re-treated when at least 50 percent of the vegetation in the border exceeds 15 feet tall. Edge habitat provides optimum benefits when located next to bare ground and diverse herbaceous cover.

Edges can be allowed to revert to native plants if invasion by non-desirable plants will not be a problem. Plowing and disking the designated border can speed the plant succession process. This technique will only be used on non-erosive slopes.

Conversion of existing sod may also be necessary to provide the proper seedbed. Recommendations are found in CONSERVATION COVER (327), PASTURE and HAY PLANTING (512), and PEST MANAGEMENT (595).

CONSERVATION COVER (327) or RESTORATION of DECLINING HABITATS (643) will be used to develop herbaceous edges for wildlife. Planting mixes under (327) for wildlife will contain multiple species (at least 3) with 60 percent or more of species having a good or excellent wildlife rating to achieve specific results. Seed mixtures will not contain species with a poor wildlife rating in Table 2 of (327).

Developed edges must be maintained in a condition to meet the owner's objectives. Herbaceous borders should be treated to control woody vegetation. If mowing is used, mow only between July 15 and August 15. If mowing is used as a habitat management

practice, residues will be thoroughly shredded to prevent excess litter accumulation.

Artificial nest structures can provide nesting opportunities. Design, specifications, and construction shall be consistent with plans included in the Missouri Department of Conservation publication "Woodworking for Wildlife", or other designs specified by a technical wildlife agency.

### **Crop field Management**

Many conservation practices provide high quality habitat components in croplands. Introduction of cover types and plant diversity add to increased habitat values.

CONSERVATION CROP ROTATION (328), RESIDUE MANAGEMENT (329A, B, C & 344), CONTOUR BUFFER STRIPS (332) and CROSSWIND practices (589B & C) can all provide positive habitat values. FIELD BORDER (386) and GRASSED WATERWAYS (412) can introduce a valuable grassland component into cropland situations when beneficial species and management are used.

Reduced/eliminated chemical use will allow significant growth of annual plants, thus enhancing the cropland values for wildlife.

WHAG model guidesheets should be consulted for appropriate cropland recommendations for wildlife.

Leave unharvested grain strips along edges of adjacent other cover types. Strips should be at least 30 feet wide and at least one-quarter acre in size.

### **Wildlife Food Plots**

Many wildlife species depend on and prefer native weed seeds and wild fruits for winter food. Additional high-quality food can be provided in the form of green browse or standing grain food plots. The location and spacing will be based on information from the WHAG model guide sheets. Locate food plots whenever possible next to low growing woody cover and diverse herbaceous cover to provide optimum benefits.

### **Grain Plots**

The minimum size of a grain food plot is one-quarter acre (about 12,000-sq. ft.). Grain food plots over 4 contiguous acres are generally not needed. Plots should be at least 30 feet wide. As a rule, one grain plot for every 40 acres of farmland is a minimum.

Each year one-half of the grain food plots should be planted with the other half allowed to grow annual plants. Rotate this sequence the following year.

Grain food plots should be located adjacent to winter cover on the upwind side. This will reduce snow drifting into critical winter cover. In all cases locate the food plot within 660' feet of winter cover. Brushpiles can be constructed adjacent to food plots to provide winter cover. Downed tree structures are another means of providing needed winter cover.

Food plots should be located on the least erosive areas of each field. Soil loss must be within tolerable limit (T). Adequate vegetative cover must be developed and maintained to provide both wildlife and erosion control benefits. If food plots are relocated or discontinued, the site will be re-seeded based on this standard.

Plots may be located on slopes greater than 5 percent provided soil losses do not exceed tolerable limit (T). Plots planted on the contour are recommended.

The food plot should be adequately fertilized. Weed control is not required as the presence of some weeds such as foxtail and ragweed actually benefit wildlife by providing higher protein and greater number of seeds than domestic grains.

Food plots will be protected from livestock grazing.

Plantings shall be seeded at proper time to ensure maturity of food plants.

#### Annual Food Plants and Seeding Rates:

Sorghum seeds are rich in energy, persistent on the plant, and usually available to wildlife when snow or ice covers other seeds. If only one grain is to be planted, grain sorghum (milo) will give the best results. Plant grain sorghum at the rate of 16 pounds per acre if broadcast, 10 pounds per acre if drilled and 5

pounds per acre if row planted. Other recommended single species and broadcast seeding rates: corn 15 lbs./ac, sunflowers 8 lbs./ac, oats 50 lbs./ac, wheat 50 lbs./ac, buckwheat 40 lbs./ac, and millets 20 lbs./ac (these rates can be reduced by 50% if drilled or row planted). "Bobwhite" trailing soybeans are an example of a food plant selected for specific wildlife benefit and can be used in annual food plots.

Grain Mixtures are:      Pounds per Acre:

1. Grain Sorghum	8
Soybeans	12
2. Grain Sorghum	8
Soybeans	8
German Millet	2
3. Grain Sorghum	12
Sunflowers	8
4. Grain Sorghum	8
Corn	8

Other food plot mixtures may be recommended by a NRCS/MDC wildlife planner.

### **Perennial Food Plot for Bobwhite Quail**

Desmodium species provide an excellent perennial food source for Bobwhite Quail. Use a 5 pound PLS/acre seeding rate to produce an excellent cover and food source.

### **Green Browse Food Plots**

Green browse food plot should be at least one acre. Plots should be located on non-erosive areas. Soil loss must be within tolerable limit (T).

The site should be open, tillable and next to suitable cover. Place the plot at least 50 feet from any woodland edge to reduce competition from trees and allow sunlight to reach the planting. A buffer strip of perennial weeds and woody shrubs should be encouraged to develop over time between the browse plot and the timber.

Providing correct nutrient application will help ensure successful establishment and growth of the food plot.

Seed 30 pounds per acre wheat and 2 pounds per acre of orchard grass in the fall (Sept – early Oct). At this seeding time overseed one-half the plot with 2 pounds per acre of ladino clover and 2 pounds per acre of red clover. The following spring (January - March) the other one-half of the food plot should be overseeded with 10 pounds per acre of lespedeza (Korean, Kobe, Marion, Summit or a mix of these).

An alternate seed mix is 30 pounds per acre wheat, 5 pounds per acre Alfalfa, and 2 pounds per acre red clover.

An NRCS Biologist or other wildlife technical agency may recommend other food plot mixtures.

Green browse plots can be mowed annually. Mowing can be done March 15 to May 1, or July 15 – September 30 (preferred) to encourage vegetative diversity. If mowing after mid-April through May 1, one must weigh the benefits of vegetative diversity gains versus impacts on ground nesting wildlife. Mow no more than one-half of the plot every year. Rotate mowed strips across the plot every year.

Renovate and re-establish plots every 3 to 4 years.

### **CONSIDERATIONS**

This standard does not attempt to list all possible habitat development and management practices. An NRCS Biologist/Wildlife Conservationist or MDC Biologist may recommend other practices for application.

All land uses provide habitat for wildlife, but there is a great variability in the quality (condition) of the land to support wildlife. A land use may provide one or more of the habitat elements necessary for a particular species during specific seasons of the year.

Wildlife population control (hunting or trapping to reduce numbers) is the responsibility of state and federal wildlife agencies. Landowners will be required to follow appropriate state and federal guidelines.



Vegetative management recommendations can be directed towards habitat gains while still maintaining the intent of protecting the soil resource.

Consider that manipulations of habitat may impact more than the desired kinds of wildlife. These possible effects shall be evaluated and taken into consideration during the planning process.

This practice may be used to promote the conservation of declining species, including threatened and endangered species.

Consider the problems of habitat fragmentation when using this practice. Create large blocks of habitat versus increased edge. Consideration needs to be given for the wildlife species of interest.

Consider habitat linkages and habitat corridors when developing upland wildlife habitat.

Proper timing of haying and livestock grazing will avoid periods when upland wildlife are nesting, fawning, etc. and will allow the establishment, development, and management of upland vegetation for the intended purpose.

Guidance for the desired end product for habitat quality for individual species or biophysical communities is found in the Missouri Wildlife Habitat Appraisal Guides – Species or Community models.

## **PLANS AND SPECIFICATIONS**

Plans and specifications for this practice shall be prepared for each site. Plans and specifications shall be recorded using approved specification sheets, job sheets, technical notes, or narrative documentation in the conservation plan, or other acceptable documentation.

NRCS staff is encouraged to work closely with the NRCS Biologist/ Wildlife Conservationist or MDC Biologist in developing site specific plans and specifications. All documents developed are to specify the requirements for installing the practice, such as the kind, amount or quantity of materials to be used, or the timing or sequence of installation activities.

## **OPERATION AND MAINTENANCE**

The purpose of operation, maintenance, and management is to insure that the practice functions as intended over time.

A plan for operation and maintenance of upland wildlife habitat at a minimum shall include monitoring and management of structural and vegetative measures. Actions will be carried out to ensure this practice functions as intended throughout its expected life. These actions include normal repetitive activities in the application and use of the practice (operation) such as prescribed fire, disking, or mowing, and repair and upkeep of the practice (maintenance) such as replacement of vegetative component as needed.

## **REFERENCES**

1. Missouri NRCS Job Sheets –  
JS-BIOL  
JS-WOOD
2. Woodworking for Wildlife – MDC Wildlife Division
3. Wildlife Management for Landowners – MDC Wildlife Division
4. MDC Guidesheets for Timber and Wildlife Benefits on Private Land – MDC Forestry Division
5. Missouri NRCS Biology Technical Notes

INTERNET SITES –

[www.conservation.state.mo.us](http://www.conservation.state.mo.us)

<http://www.whmi.nrcs.usda.gov/>